

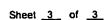
Attorney Docket No. 04843/116002 SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Serial No. 10/731,550 (MODIFIED) **Applicant** Ole Isacson et al. INFORMATION DISCLOSURE Filing Date December 9, 2003 STATEMENT BY APPLICANT 1651 6635 (Use several sheets if necessary) Group **IDS Filed** May 19, 2004 (37 C.F.R. § 1.98(b)) Customer No. 21559 U.S. PATENT PUBLICATIONS Patent Number Issue Date Patentee Class Subclass Filing Date Examiner's (If Appropriate) Initials 5,981,165 11/1999 Weiss et al. 6,277,820 08/2001 Rosenthal et al. 6,284,539 09/2001 Bowen et al. 6.395.546 05/2002 Zobel et al. 2002/0076799 A1 06/2002 Wang 2002/0098582 A1 07/2002 Gold et al. 2002/0127715 A1 09/2002 Benvenisty et al. 2002/0146678 A1 10/2002 Benvenisty FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION Subclass Examiner's **Publication** Class Translation Document Country or Number Date Patent Office (Yes/No) Initials 08/04/94 PCT WO 94/16718 WO 94/10292 05/11/94 PCT WO 94/09119 04/28/94 PCT OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION) Abuin et al., "Full speed mammalian genetics: in vivo target validation in the drug discovery process" Trends in Biotechnol. 20:36-42 (2002) Attisano et al., "Signal transduction by the TGF-\$\beta\$ superfamily" Science 296:1646-1647 (2002) Björklund et al., "Embryonic stem cells develop into functional dopaminergic neurons after transplantation in a Parkinson rat model Proc. Natl. Acad. Sci. USA 99:2344-2349 (2002) Bronson et al. "Altering mice by homologous recombination using embryonic stem cells" J Biol. Chem. 269:27155-27158 (1994) Brüstle et al., "Embryonic stem cell-derived glial precursors: a source of myelinating transplants" Science 285:754-756 (1999) Cazorla et al., "A response element for the homeodomain transcription factor Ptx3 in the tyrosine hydroxylase gene promoter\* J. of Neurochem. 74:1829-1837 (2000) **EXAMINER** DATE CONSIDERED EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.



Sheet of Attorney Docket No. 04843/116002 U.S. DEPARTMENT OF COMMERCE SUBSTITUTE FORM PTO-1449 PATENT AND TRADEMARK OFFICE Serial No. 10/731.550 (MODIFIED) Ole Isacson et al. Applicant INFORMATION DISCLOSURE Filing Date December 9, 2003 STATEMENT BY APPLICANT 1651 /635 (Use several sheets if necessary) Group IDS Filed

## (37 C.F.R. § 1.98(b)) 21559 Customer No. OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION) Deacon et al., "Blastula-stage stem cells can differentiate into dopaminergic and serotonergic neurons after transplantation" Experimental Neurology 149:28-41 (1998) Eiges et al., "Establishment of human embryonic stem cell-transfected clones carrying a marker for undifferentiated cells" Current Biology 11:514-518 (2001) Flax et al., "Engraftable human neural stem cells respond to developmental cues, replace neurons, and express foreign genes" Nature Biotechnology 16:1033-1039 (1998) Friedmann, "Overcoming the obstacles to gene therapy" Scientific American 96-101 (Jun. 1997) Hemmati-Brivaniou et al., "Vertebrate embryonic cells will become nerve cells unless told otherwise" Cell 88:13-17 (1997) Hynes et al., "Embryonic stem cells go dopaminergic" Neuron 28:11-14 (2000) Isacson et al., "Parkinson's disease: interpretations of transplantation study are erroneous" Nature Neuroscience 4:553 (Jun 2001) Jackowski, "Neural Injury repair: hope for the future as barriers to effective CNS regeneration become clearer" British Journal of Neurosurgery 9:303-317 (1995) Jordan et al., "Bone morphogenetic proteins: neurotrophic roles for midbrain dopaminergic neurons and implications of astroglial cells" Eur. J. Neuroscience 9:1699-1710 (1997) Kalderon "Transducing the hedgehog signal" Cell 103:371-374 (2000) Kawasaki et al., "Induction of midbrain dopaminergic neurons from ES cells by stromal cell-derived inducing activity" Neuron 28:31-40 (2000) Kim et al., Dopamine neurons derived from embryonic stem cells function in an animal model of Parkinson's disease" advanced online publication Nature (June 20, 2002) (doi:1038/nature00900) Kriegistein et al., "Development of mesencephalic dopaminergic neurons and the transforming growth factor-β superfamily" J. Neural Transm 46 (Suppl):209-216 (1995) Knieglstein et al., \*TGF-β superfamily members promote survival of midbrain dopaminergic neurons and protect them against MPP toxicity EMBO J. 14:736-742 (1995) Kriegistein et al., "TGF-β and the regulation of neuron survival and death" J. Physiology 96:25-30 (2002) Lee et al., "Efficient generation of midbrain and hindbrain neurons from mouse embryonic stem cells" Nat. Biotechnol. 18:675-679 (2000) Li et al., "Generation of purified neural precursors from embryonic stem cells by lineage selection" Curr. Biol. 8:971-974 (1998) Lim et al., "Noggin antagonizes BMP signaling to create a niche for adult neurogenesis" Neuron 28:713-728

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next conformance and not considered. Include copy of this form with the next conformance and not considered.



Attorney Docket No. 04843/116002 SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Serial No. 10/731,550 (MODIFIED) Ole isacson et al. Applicant December 9, 2003 Filing Date INFORMATION DISCLOSURE STATEMENT BY APPLICANT 1<del>05</del>5 1631 (Use several sheets if necessary) Group **IDS Filed** May 19, 2004 (37 C.F.R. § 1.98(b)) Customer No. 21559 OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION) Lindvall, "Engineering neurons for Parkinson's disease" Nature Biotechnology 17:635-636 (1999) McDonald et al., "Transplanted embryonic stem cells survive, differentiate and promote recovery in injured rat spinal cord" 5:1410-1412 (1999) McMahon "More surprises in the hedgehog signaling pathway" Cell 100:185-188 (2000) Minchiotti et al.. "Role of EGF-CFC gene cripto in cell differentiation and embryo development" Gene 287:33-37 (2002)Orkin and Motulsky, "Report and recommendations of the panel to assess the NIH investment in research on gene therapy" (Dec 1995) Odorico et al., "Multilineage differentiation from human embryonic stem cell lines" Stem Cells 19:193-204 (2001) Piccini et al., "Delayed recovery of movement-related cortical function in Parkinson's disease after striatal dopaminergic grafts\* Annals of Neurology 48:689-695 (2000) Piccini et al., "Dopamine release from nigral transplants visualized in vivo in a Parkinson's patient" Nature Neuroscience 2:1137-1140 (1999) Reynold and Weiss, "Generation of neurons and astrocytes from isolated cells of the adult mammalian central nervous system" Science 255:1707-1710 (1992) Stull et al., "Induction of a dopaminergic phenotype in cultured striatal neurons by bone morphogenetic proteins" Developmental Brain Research 130:91-98 (2001) Tiedemann et al., "Pluripotent cells (stem cells) and their determination and differentiation in early vertebrate embryogenesis" Develop. Growth Differ. 43:469-502 (2001) Tropepe et al. "Direct neural fate specification from embryonic stem cells: A primitive mammalian neural stem cell stage acquired through a default mechanism" Neuron 30:65-78 (2001) Verma and Somia, "Gene therapy -- promises, problems and prospects" Nature 389:239-242 (1997) Wagner et al., "Induction of a midbrain dopaminergic phenotype in Nurr1-overexpressing neural stem cells by type 1 astrocytes" Nat. Biotechnol. 17:653-659 (1999) Zwaka et al., "Homologous recombination in human embryonic stem cells" Nature Biotechnology, advanced online publication, pp. 1-3, (February 10, 2003) **EXAMINER** DATE CONSIDERED EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.

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FORM PTO-1449 INFORMATION DISCUSSIVE STATEMENT				OCKET NO. 5429/9	SERIAL NO. 10/731,550			
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OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)								
Sakurada et al. "Nurr1, an orphan nuclear receptor, is a transcriptional activator of endogenous tyrosine hydroxylase in neural progenitor cells derived from the adult brain." Development, 1999 Vol. 126:4017-4026.								
Bjorklund et al. "Embroynic stem cells develop into functional dopaminergic neurons after transplantation in a Parkinson rat model." Proc. Natl. Acad. Sci., 2002 Vol. 99:2344-2349								
	Ramsden et al. "The aetiology of idiopathic Parkinson's disease." Journal of Clinical Pathology: Molecular Pathology; 2001 Vol. 54:369-380.							
Attisano et al. Signal Transduction by the TGF-beta Superfamily. Science, 2002 Vol. 296:1646-1647.								
Examiner: Date: 1-17-07								